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TC 1700

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1774

In re Application of:

Faquir JAIN and Fotios PAPADIMITRAKOPOLIS

Art unit: 1774

Serial No. 09/547,415

Examiner: GARRETT, Dawn

#19D

Filed: April 11, 2000

For: FULL COLOR DISPLAY STRUCTURE USING CNC THIN FILM

REVISED AMENDMENT (marked-up copy)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In response to USPTO Notice of Non-Compliant Amendment dated June 23, 2003, please amend the application as follows:

IN THE CLAIMS;

Claim 1. (currently amended) A *p-n* junction electroluminescent (EL) device, comprising successive multiple layers of:

a semiconductor-on-insulator substrate;

a *p*-[doped] type Si layer grown on said substrate, part of the layer being oxidized to isolate the electrodes at the bottom of said device;

a thin layer of Si [relative to] thinner than the substrate which allows further epitaxial growth;

a *p*-[doped] type [wide energy gap relative to the cladded nanocrystals (CNCs)] semiconductor layer grown epitaxially;

a layer comprising pseudomorphic cladded quantum dots nanocrystals (CNCs) with narrower energy gap semiconductor layer than said p-type layer deposited on the said wide energy gap layer for [lattice-matched] lattice-matching and electroluminescence;

a semiconductor layer [relative to] thinner than the substrate, having n-type conductivity [with wide energy gap relative to] and wider energy gap than the cladded quantum dot nanocrystals (CNCs) grown on the CNC layer; and

a metal layer forming a plurality of top contact electrodes deposited on the *n*-[doped] type wide energy gap semiconductor layer having patterned regions to confine current conduction in [desired] pixels of said EL device

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